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AUTHOR Wright, E. N.
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ABSTRACT

The similarity between two scales for assessing socioeconomic status was examined from longitudinal data on the achievement of Canadian students. Toronto's Longitudinal Study of Achievement sampled the complete senior kindergarten population (8,679 5-year-olds) in 1961-62, classifying father's occupations according to Hollingshead and Redlich's scheme. A 1970 followup asked 3,607 students to name their father's and mother's current jobs, and classified them according to Blishen's scale, a Canadian scale that is based upon weighted average of mean income and mean education for every occupational category in the census. When the same information was requested in 19 5, several problems arose: different persons represented the head of household; there was no code available for certain occupations; and special categories had to be created. A number of changes were noted, over the years; occupational stability was more frequent in certain occupational categories. It was tentatively concluded that it does not make a great deal of difference which socioeconomic scale is used in achievement studies. Since one cannot assume status directly from occupation, it is not a relevant predictor of achievement. Place of residence, immigration status, and language may be more productive environmental variables to study. (GDC)

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# MEASUREMENT OF SOCIO-ECONOMIC STATUS -- SOME LONGITUDINAL DATA

E. N. Wright
The Board of Education for the City of Toronto

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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It is surely not much of an exaggeration to say that in educational research, socio-economic status is a variable that must almost always be considered and more often than not measured in some manner. Although there are many studies which use some measure of socio-economic status, it is the author's impression that there is rarely any discussion of why a given measure was used except for a possible reference to availability of information.

"Does it make a difference which scale is used in such studies?" The purpose of this paper is to examine some more specific questions raised in considering such a general issue by looking at several kinds of data. How similarly are students ranked when assessed by different measures at two different time periods nearly a decade apart? How similarly are students ranked when assessed using the same scale and procedures five years later? This question implies a measure of reliability, however, differences between two measures taken several years apart can also be interpreted as mobility measures (The major limitation in the data which follows is the absence of any estimate of reliability for the SES measures, which limits statements about mobility). Are similar amounts of variance on achievement measures accounted for by the two different SES measures referred to above and is the amount of variance accounted for by a detailed scale affected when the scale is collapsed into fewer categories?

Many years ago a longitudinal study of achievement was initiated under the direction of the Research Department of The Toronto Board of Education. The study, which will be described in a little more detail below, used a simple occupational scale by Hollingshead & Redlich (1958, pp. 390-391) to measure social class. Continuing work with the longitudinal study led to questions about the suitability of this American occupational scale for Canadian families. These considerations led to a decision to use Blishen's scale in further ana-

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lyses since it was Canadian. A report by Eason and Crawford (1969) provides a brief literature review relating to these considerations, a bibliography and some technical information about the conversion from one scale to the other for the parents of the 721 children involved in the particular sub-study. This author continued to be interested in SES and its measurement and use as an explanatory variable in education. This paper arises serendipidously, primarily from this curiosity and the existence of some large sets of data which the author had collected and/or worked with. The data led to the issues and questions stated above.

As early as 1939 Lazarsfeld examined the question of the interchangeability of indicies in measuring economic influences. Status was expressed in three categories and although he qualifies his conclusions, he feels that the thesis of interchangeability of indicies for measuring economic influences is worth pursuing. Further he not only stresses that there is no "best index", but also he says that a more sensitive index is not necessarily a better one.

Reiss (1961) states that, "There can be no such thing as a single index of socioeconomic status suitable for all purposes of social research in a modern, complex society". (pp. 139) Further on, Reiss reminds us that, "The index of occupational socioeconomic status was constructed to predict the prestige rating of occupations. It was not designed to secure optimal prediction of the prestige standing of individuals in their local communities or other group contexts". (pp. 145) In other words even though we have satisfactorily arranged some occupations in order of status or prestige, we cannot assume that the people who have the same job necessarily have the same status.

There seem to have been few attempts to compare various socio-economic indicies with each other. Kahl and Davis (1955) collected and factor analyzed

data on 219 men using 19 indicies. The first factor included several different measures of occupation, as well as education, wife's education, etc. The second factor included housing and residential area as well as measures of the status of the subject's parents. Income was equally loaded on both factors but not strongly. He interpreted this as showing that an individual's status could not be determined by considering occupation only but that his status was also determined by where he lived. Other measures were considered to be indirect indicies of these two factors. Income by itself was modestly related to both factors and was considered to be less important than the two major factors. Spanier (1967) argues that, for university students, father's education is the best index of social class, better than father's occupation or mother's education. Besides his data which supports this contention, he points out that father's education is stable and established early, before or during the individual's socialization. Carter-Saltzman et al. (1975) carefully examined Gough's Home Index as a measure of Socio Economic Status in a co-twin study (data was reported by the 10-16 year-old students). Not only did the twins disagree in reporting on some items but also it appeared that the index was almost unrelated to standardized test measures for the black twins though there was a modest relationship for the white twins. Kerckhoff et al. (1973) compare father's occupation as reported on a questionnaire (Grades 6, 9 and 12) with results from an interview with their parents. They suggest that the differences they obtained in terms of accuracy for blacks and whites are not substantial. This does not mean that the data would therefore be any better at accounting for variance in the student's academic performance than was Carter-Saltzman's. In Canada a national study of occupational prestige made it possible to examine the social standing of ethnic and racial groupings (Pineo 1977). He concludes that their ranking is a less crucial element in Canadian social structure than the ranking of

occupation. In other words, ethnicity does not account for status to the degree that jobs do.

Since the literature does not seem to contain data on the results of socio-economic measures for the same students taken at different times, it is hoped that these results may be of some general interest both to those considering the use of such scales and to those who work with theories of class and status.

Data

All the data used in this report comes from the Toronto Board of Education's Research Department. In Toronto the Longitudinal Study of Achievement was mounted to examine the effects of junior kindergarten (Toronto Board of Education, 1965a & b; Palmer, 1967; Rogers, 1969 a & b; Schroder, Crawford and Wright, 1971; Wright, 1964). This study included the complete senior kindergarten population (5 year-olds) in the school year 1961-62. Among the various pieces of data collected when the students registered was their parents' occupations. Father's occupation was classified using the scheme of Hollingshead and Redlich (1958, pp. 390-391). The distribution of this data in the original study is reported in Table 1. Some achievement data from this study is also used later in this paper.

Table 1

FATHERS' OCCUPATIONS OF SENIOR KINDERGARTEN STUDENTS
(FALL, 1961)

| Occupational Code | Occupational Categories * | Percentage of Students (N = 8679) |
|---|---|---|
| 7 | - unskilled employees, unemployed workers | 14.7 |
| 6 | - semi-skilled employees | 27.7 |
| 5 | - skilled manual employees | 24.1 |
| 4 | - clerical-sales workers, technicians, owners of small businesses | 17.4 |
| 3 | - administrative personnel, small independent business, minor professionals | 4.2 |
| 2 | - business managers, proprietors - medium business, lesser professionals | 3.2 |
| 1 | - higher executives, proprietors - large business, major professionals | 2.8 |
| 0 | - no information | 6.0 |

* Classified using the scheme of Hollingshead & Redlich, (1958)

In the Spring of 1970 a survey was undertaken of every student in the Toronto school system (Wright, 1970). Among the pieces of information collected from the students - self-reported information - were the answers to the questions "What is your father's job now?", "What is your mother's job now?" The reported occupations were coded according to Blishen's Scale, a Canadian scale that is based on a weighted average of mean income and mean education for every occupational category as listed by the Canadian Census (Blishen, 1967). Again on May 1, 1975 the same information was collected from every student in the Toronto system (Deosaran & Wright, 1976). In applying Blishen's scale to the data on parents' occupations, there were many problems to be solved. In families where there was no father, the mother's occupation was used - when neither parent was present, the head of the household was used. There were many

households for which there was no occupational code that could be used, for example when the head of the household was a student, on workmen's compensation, or unemployed. These were assigned special categories. Later on the data from Blishen's scale was collapsed into eight categories to which were added the special categories. The eight groups were arbitrarily created by inspecting the frequency distribution and dividing it into what appeared to be natural groups (i.e. divisions were made at points in the scale where there were few cases). The summarized data is presented for the two every student surveys in Table 2.

Achievement data, in the form of Gates-MacGinite Reading scores had been examined for some of the students who were in the Every Student Survey (Wright & Reich, 1972) and this is referred to later.

Results

Of the 8,679 senior kindergarten students in the school year 1961-62, 3,607 completed an Every Student Survey Form in 1970, 8 1/2 years later when most of them were in Grade 8. This is 41.6% of the original population which is a fair reflection of student mobility out of the Toronto school system at that time (Rogers, 1969b). The comparison of the data from the two scales represents data which was collected differently (i.e. from an adult at time of registration as opposed to self report on a form in the classroom). From experience, the author knows that there can be many coding problems in dealing with occupational data. Differences between the two scales can be attributed to several causes: the differences in the instruments themselves: unreliability and/or coding problems; changes in parents' occupations; or comparing father's occupation with head of households' occupation. This should be remembered when looking at the comparisons in Table 3. Here we can look down the columns to see the degree to which students who were in one of the original categories

TABLE 2

SOCIO-ECONOMIC CODES FOR HEAD OF HOUSEHOLD
(COMPARISON WITH 1970 EVERY STUDENT SURVEY REPORT NO. 91)

| Category Number | Blishen's Category | Category Description | Per Cent '70 | Per Cent '75 | Number in 1975 Elem. | Number in 1975 Sec. |
|---|---|---|---|---|---|---|
| 1 | | No information or unknown | 2.86 | 4.78 | 2301 | 2130 |
| 2 | 25-31.99 | Labourers, truck drivers, porters, waiters | 42.74 | 42.01 | 27018 | 11931 |
| 3 | 32-34.99 | Bartenders, sheetmetal workers, repairmen | 7.68 | 6.05 | 3934 | 1676 |
| 4 | 35-38.99 | Sales clerks, jewellers, stationary engineers, machinists | 4.97 | 3.10 | 1939 | 938 |
| 5 | 39-42.99 | Pressmen, printing workers, electricians, members of the armed forces, clerical occupations | 9.27 | 9.16 | 5242 | 3251 |
| 6 | 43-49.99 | Actors, tool & diemakers, medical & dental technicians, embalmers, real estate salesmen, engravers | 6.09 | 8.52 | 4865 | 3034 |
| 7 | 50-54.99 | Musicians, stenographers, athletes | 4.35 | 2.90 | 1777 | 910 |
| 8 | 55-65.99 | Clergymen, various owners and managers, insurance salesmen, librarians | 4.68 | 4.62 | 2806 | 1474 |
| 9 | 66-76.99 | Teachers, professional engineers, physicians, computer programmers, air pilots, lawyers, accountants | 8.00 | 8.41 | 5345 | 2453 |
| 10 | | Pensioner, retired, workmen's compensation, and disabled or ill* | .70 | 1.16 | 390 | 690 |
| 11 | | Welfare, mother's allowance | .37 | .18 | 104 | 65 |
| 12 | | University, adult re-training, or other full-time education | .64 | .68 | 491 | 136 |
| 13 | | Unemployed | 3.15 | 3.42 | 2401 | 770 |
| 14 | | Mother only, housewife | 4.40 | 4.64 | 2994 | 1303 |
| 15 | | Respondent on his/her own | .09 | .16 | 6 | 144 |
| 16 | | Group home head* (e.g., social worker, etc.) | -- | .20 | 75 | 110 |
| TOTAL PER CENT | | | 99.99 | 99.99 | | |
| TOTAL NUMBER | | | 103,818 | 92,703 | 61688 | 31015 |

* Not specifically coded in 1970.

TABLE 3

COMPARISON OF TWO CATEGORIZATIONS OF PARENTS' OCCUPATIONS
DISTRIBUTION OF HOLLINGSHEAD AND REDLICH CATEGORY AS A
PERCENTAGE OF E.S.S.* SCHEME

| E.S.S.* Categories | Hollingshead & Redlich Scheme 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Total | Original E.S.S.* Dist.** |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 14.5 | 15.6 | 15.7 | 10.9 | 10.4 | 10.4 | 11.4 | 16.4 | 12.1 | 2.9 |
| 2 | [28.0] | | | 8.8 | [21.0] | [40.2] | [46.8] | [49.7] | 36.0 | 42.7 |
| 3 | 6.5 | | | .7 | 6.6 | 8.2 | [10.4] | 5.8 | 7.3 | 7.7 |
| 4 | 4.8 | | 1.7 | 2.7 | 5.9 | 8.3 | 5.2 | 3.9 | 5.5 | 5.0 |
| 5 | 8.1 | 2.2 | 5.2 | [12.2] | [17.2] | 14.2 | 7.9 | 6.5 | 10.8 | 9.3 |
| 6 | 7.5 | | 5.2 | 19.0 | [12.3] | 6.3 | 3.1 | 4.1 | 6.5 | 6.1 |
| 7 | 2.7 | 3.3 | 7.0 | 10.2 | 8.9 | 2.1 | 2.2 | 1.1 | 3.7 | 4.4 |
| 8 | 2.7 | [10.0 | [13.9] | 14.3 | 8.7 | 1.9 | .9 | .6 | 3.7 | 4.7 |
| 9 | 1.6 | [68.9] | [47.8] | 18.4] | 3.6 | 1.2 | 1.0 | .2 | 5.3 | 8.0 |
| 10 | 1.6 | | .9 | | .8 | .7 | 1.0 | .9 | .8 | .7 |
| 11 | 1.6 | | | | | .4 | .4 | .7 | .4 | .4 |
| 12 | | | | | | .5 | .1 | | .1 | .6 |
| 13 | 3.2 | | | .7 | 1.3 | 2.5 | 4.2 | 4.9 | 2.9 | 3.2 |
| 14 | [17.2] | | 2.6 | 2.0 | 3.2 | 3.2 | 5.5 | 5.2 | 4.7 | 4.4 |
| TOTAL | 100.0 | 100.0 | 100.0 | 99.9 | 99.9 | 100.1 | 100.1 | 100.0 | 99.8 | 100.1 |
| N | 186 | 90 | 115 | 147 | 632 | 853 | 1048 | 536 | 3607 | 103818 |

* Every Student Survey 1970

** Data for complete population supplied for comparison.

NOTE: Emphasis supplied to facilitate reading of Table.

are still found grouped together. Emphasis has been added to the table to facilitate these comparisons. The correlation between the two measures for the students within the "box" was -.642.

The most unusual characteristic of these data is the large percentage of students in this particular sample, 12.1% compared with 2.9% for the school system, who did not answer this question. The only explanation that can be considered is that they are tired of contributing research data -- which they did a lot of until Grade 4. Obviously the bottom two and top two categories of the Hollingshead and Redlich scheme are the most stable and comparable with the categories used in the Every Student Survey. It is also interesting to note that where no occupational information was obtained when the child registered, in the Every Student Survey categories nearly two sevenths are in the bottom category and over a sixth are reporting the head of the household as housewife (single parent family). Table 4 presents the data for 36,777 students who were present for the surveys in 1970 and 1975. These are generally students from junior kindergarten to Grade 8 who, five years later were in Grades 4 to 13. A correlation was run using the Blishen numbers 25-77 inclusive (coding was done using only two digits). Scores for first and second Every Student Survey correlated .728 (N = 29485). The 1970 mean was 39.12 (sd = 13.96) and the 1975 mean was 39.95 (sd = 14.75). While this can be interpreted as slightly increased status for the "average" job, there is increased variability in the scores and furthermore the "non-jobs" are not included in the average. The relatively low correlation can be attributed to inaccurate reporting, more likely by the younger children, misunderstandings of the job as the students described it, and related problems of coding, as well as to actual changes in jobs. Data being analyzed now suggests that

there are inaccuracies in reporting country of birth and mother tongue of over 5% with the consistency appearing best for students born in Canada and for students speaking English as a mother tongue. There is of course the possibility that immigrants are occupationaly mobile, particularly if they cannot initially get a job that draws on their skills and training. Table 4 once again shows the greatest stability for the extreme categories which contain the professionally trained and the unskilled. Incumbents are unlikely, indeed probably unable, to move from these positions, the professional is unlikely to retrain and the unskilled may not find it easy to obtain and succeed at training programs. Categories four through seven are the least stable. Occupations included here represent a variety of owners, managers, foremen, clerical occupations, technicians, mechanics as well as actors, embalmers, real estate salesmen, members of the armed forces.

A variety of analyses were undertaken to explore the "consequences" of using different scales in relation to standardized achievement tests. No attempt was made to be exhaustive in the different analyses. Some achievement measures from the study of achievement were correlated with the original occupational categories of Hollingshead and Redlich and the Every Student Survey data of 1970. Table 5 presents these correlations.

For all correlations, the 1970 scale was consistently slightly weaker. The achievement test scores, excluding spelling, the group I.Q test and the teachers' ratings of "school ability" showed correlations with the S.E.S. measure that ranged from .25 to .33 accounting for between 6% and 11% of the variance.

TABLE 4

DISTRIBUTION OF STUDENTS USING 1975 EVERY STUDENT SURVEY DATA
EXPRESSED AS A PERCENTAGE BASED ON THEIR CATEGORIZATION IN 1970

| 1975 Values | 1970 Values | | | | | | | | | | | | | | | 1975 Students | | 1975 E.S.S.* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | No. | % | % |
| 1 | 7.3 | 4.5 | 3.8 | 4.5 | 4.1 | 4.1 | 3.5 | 3.8 | 1.6 | 5.2 | 7.0 | 2.8 | 9.6 | 7.0 | - | 1,615 | 4.4 | 4.8 |
| 2 | 29.4 | [66.1] | [32.0] | [32.2] | [16.2] | [14.7] | [14.0] | 3.9 | 1.5 | [18.3] | 17.8 | [25.0] | [38.1] | [20.6] | - | 14,637 | 39.8 | 42.0 |
| 3 | 5.6 | 4.7 | [32.3] | 5.8 | 4.5 | 3.0 | 1.3 | 1.4 | .3 | .9 | 1.0 | 5.7 | 4.1 | 2.1 | - | 2,171 | 5.9 | 6.1 |
| 4 | 2.2 | 2.6 | 2.9 | [18.0] | 2.9 | 3.2 | 1.4 | 1.6 | .9 | 1.7 | - | 2.3 | 1.6 | 3.1 | - | 1,173 | 3.2 | 3.1 |
| 5 | 9.1 | 5.6 | 8.5 | 13.6 | [43.1] | [14.8] | 9.8 | [12.1] | 3.7 | 2.6 | 2.0 | 12.5 | 2.9 | 5.0 | - | 3,863 | 10.5 | 9.2 |
| 6 | 9.5 | 4.5 | 9.0 | [10.3] | [10.0] | [40.1] | [26.0] | [15.6] | 7.0 | 5.2 | 1.0 | 5.1 | 3.0 | 3.6 | 25 | 3,430 | 9.3 | 8.5 |
| 7 | 3.5 | .7 | 1.2 | 2.5 | 4.0 | 4.9 | 17.4 | 7.0 | 3.5 | 1.7 | 3.0 | 4.5 | .5 | 3.3 | - | 1,024 | 2.8 | 2.9 |
| 8 | 2.5 | .5 | 1.1 | 2.2 | 4.2 | 4.8 | 14.6 | [41.6] | 9.6 | - | 2.0 | 4.0 | .9 | 1.1 | - | 1,686 | 4.6 | 4.6 |
| 9 | 9.9 | 2.7 | 3.5 | 4.7 | 5.2 | 5.8 | 7.6 | 10.2 | [69.3] | 13.9 | 6.0 | [26.1] | 6.7 | 6.0 | 75 | 3,696 | 10.0 | 8.4 |
| 10 | 3.2 | 1.4 | 1.4 | 1.8 | 1.1 | 1.0 | 1.2 | 1.1 | .6 | [28.7] | 5.0 | .6 | 10.5 | 1.0 | - | 610 | 1.7 | 1.2 |
| 11 | .6 | .09 | .2 | .1 | .06 | .05 | - | - | - | .9 | 5.0 | - | .3 | .7 | - | 51 | .1 | .2 |
| 12 | .5 | .1 | .1 | .2 | .3 | .3 | .2 | .5 | 1.7 | 1.0 | 1.7 | 1.0 | 1.7 | .2 | - | 81 | .2 | .7 |
| 13 | 6.9 | 3.7 | 2.3 | 2.1 | 2.0 | 1.2 | 1.0 | .4 | .2 | 7.8 | [16.8] | 2.8 | [15.5] | 5.2 | - | 1,170 | 3.2 | 3.4 |
| 14 | 9.7 | 2.4 | 1.7 | 2.2 | 2.1 | 2.0 | 1.7 | 1.2 | 1.1 | 10.4 | [30.7] | 6.8 | 5.8 | [40.3] | - | 1,505 | 4.1 | 4.6 |
| 15 | - | .02 | .04 | - | .1 | .1 | .06 | .1 | .2 | .9 | 1.0 | - | - | .3 | - | 26 | .1 | .2 |
| 16 | .1 | .1 | .04 | - | .09 | .1 | .06 | .1 | - | - | 1.0 | - | .3 | .5 | - | 39 | .1 | .2 |
| Number of Students 1970 -- | 951 | 16,506 | 2,744 | 1,842 | 3,373 | 2,067 | 1,554 | 1,689 | 3,101 | 115 | 101 | 176 | 1,017 | 1,537 | 4 | 36,777 | | |
| Per cent of Students 1970 -- | 2.6 | 44.9 | 7.5 | 5.0 | 9.2 | 5.6 | 4.2 | 4.6 | 8.4 | .3 | .3 | .5 | 2.8 | 4.2 | | | | |

NOTE: Emphasis supplied to facilitate reading of Table.

* Data for complete population supplied for comparison

TABLE 5

CORRELATIONS BETWEEN S.E.I. MEASURES* AND ACHIEVEMENT MEASURES

| Achievement Measures | 1961 S.E.I. (N = 3412) | 1970 S.E.I. (N = 2844) |
|---|---|---|
| Grade 2 I.Q. | -.295 (2910) | .260 (2503) |
| Grade 3 Ratings | | |
| Adjustment | -.127 (1202) | .114 (1057) |
| Performance | -.173 (1202) | .160 (1057) |
| Creativity | -.225 (1202) | .217 (1057) |
| School Ability | -.314 (1202) | .288 (1057) |
| Grade 3 Metro Achievement | | |
| Word Knowledge | -.330 (1580) | .294 (1347) |
| Word Discrimination | -.299 (1580) | .278 (1347) |
| Reading | -.329 (1580) | .296 (1347) |
| Spelling | -.233 (1580) | .213 (1347) |
| Language | -.311 (1580) | .299 (1347) |
| Arithmetic | -.282 (1580) | .246 (1347) |
| Problems | -.283 (1580) | .274 (1347) |
| Correlation between S.E.I. measures -.642 (2729) | | |

* Hollingshead and Redlich scheme for 1961, Every Student Survey scheme for 1970, with missing data excluded.

A study of reading and language (Wright and Reich, 1972) included measures of reading obtained using the Gates-MacGinite Tests. The data, reported in Table 6, are arrived at somewhat differently than that in Table 5 since the regression equations were run treating the occupational categories as dummy variables. In grades four and six, this is more predictive than using the detailed Blishen scale and at the same time ignoring those whose parents do not have an "occupational" category.

Summary and Discussion

When children were registered in kindergarten, their parents' occupations were recorded and coded in a seven category scheme of Hollingshead and Redlich. Eight and a half years later the same students reported parents' occupations in an Every Student Survey. The data were coded using Blishen's scheme, collapsed into eight categories to which were added some categories without defined socio-economic status, e.g. pensioner, student, housewife and unemployed. Comparisons were made for some 3,600 students. A repeat of the Every Student Survey and its procedures allowed another comparison between two sets of self-reported data for over 36,000 students. Hollingshead and Redlich top two categories, both contain many members of the top Every Student Survey category: each of their bottom 3 categories, particularly seven and six, contain many members from the bottom Every Student Survey category. The middle group three and four and to a degree group five, is more scattered through various Every Student Survey categories. Comparing the two administrations of the Every Student Survey, one finds stability in the extreme categories two and nine. Categories three and four, and to a small degree categories five, six and seven, had members who were found in the bottom group (i.e. two) five years later. Categories four through eight show slightly more consistency in this comparison of two administrations of the same scale than did

TABLE 6#

AMOUNT OF VARIANCE IN READING SCORES ACCOUNTED FOR BY BACKGROUND VARIABLES EXPRESSED AS A PERCENTAGE

| Group and Test | Background Variables | | | |
|---|---|---|---|---|
| | Language* (4 categories) | Occupation** (14 categories) | Language and Occupation Combined | Blishen's Full Occupational Scale (r) |
| Grade 4 | | | | |
| Vocabulary | 2.9% | 15.4% | 17.2% | 11.6% (.341) |
| Comprehension | 2.7% | 16.0% | 17.8% | 14.6% (.382) |
| Grade 6 | | | | |
| Vocabulary | 7.7% | 15.3% | 19.3% | 13.8% (.372) |
| Comprehension | 5.9% | 16.6% | 19.1% | 14.8% (.384) |
| Grade 8 | | | | |
| Vocabulary | 5.3% | 10.4% | 13.4% | 10.4% (.323) |
| Comprehension | 3.7% | 9.6% | 12.0% | 9.8% (.312) |
| Grade 9 | | | | |
| Vocabulary | 7.4% | 13.5% | 18.1% | 15.3% (.391) |
| Comprehension | 5.6% | 10.1% | 13.7% | 9.6% (.310) |

NOTE: Columns 1 - 3 based on linear regression, expressing categories as dummy variables. Column 4 is based on a correlation of actual Blishen numbers (limited to students within our categories 2 - 9) and reading scores.

* See Tables 1 - 4 of original report for categories and averages.

** See Tables 5 - 8 of original report for categories and averages.

# A reproduction of Table 10, Page 21 of the report entitled Language: A Study of Fundamental Skills (Wright & Reich, 1972).

* The four "language" categories are (a) born in Canada, mother tongue English, (b) born in Canada, English not mother tongue, (c) not born in Canada, English a mother tongue and (d) not born in Canada, English not a mother tongue.

the middle categories when comparing the two different scales. It appears that groups four and seven are the least stable.

It is concluded that if one is using Socio-Economic Index to control for the effects of "class" on school achievement measures, Lazarsfeld is right in suggesting that it may not make a great deal of difference which scale is used. One cannot assume an individual's status directly from occupation. Therefore one should not assume a direct relationship between job and childs' achievement scores. Refining the occupational scale is not going to improve the correlation because it does not add much relevant information. Adding other variables, such as place of residence and immigration status and language, will be more productive for the educational researchers who are trying to control variance attributable to "status" through measuring environmental or situational variables.

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